

### **REMARKS**

This is intended as a full and complete response to the Final Office Action dated June 23, 2009, having a shortened statutory period for response set to expire on September 23, 2009. Please reconsider the claims pending in the application for reasons discussed below.

Claim 3 has been cancelled and the subject matter if added to claim 2. Claims 1, 2, 4-19 remain pending in the application and are shown above. Claims 1-12 and 15-19 are rejected. Claims 13 and 14 are objected to by the Examiner. Claim 15 has been amended as the Examiner suggested. Claims 1, 2, 8, 14, and 19 have been amended to clarify the invention. New claims 20-21 have been added, support for which can be found at least on p. 11, line 34-12 line 5 and p. 16, lines 9-10 in the present application. Reconsideration of the rejected claims is requested for reasons presented below.

#### **Claim Rejections Under 35 U.S.C. § 112**

Claim 15 is rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Claim 15 has been amended to reflect the Examiner's suggestion.

#### **Claim Rejections Under 35 U.S.C. § 102**

Claims 1-12, 15, 17, and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by *Robinson* (US Pat. 2,581,446, hereinafter *Robinson*).

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Brothers v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The identical invention must be shown in as complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). In other words, the elements in the single prior art reference must be "arranged or

combined in the same way as in the claim," *Net MoneyIN, Inc. v. VeriSign, Inc.*, 545 F.3d 1359, 1370 (Fed. Cir. 2008).

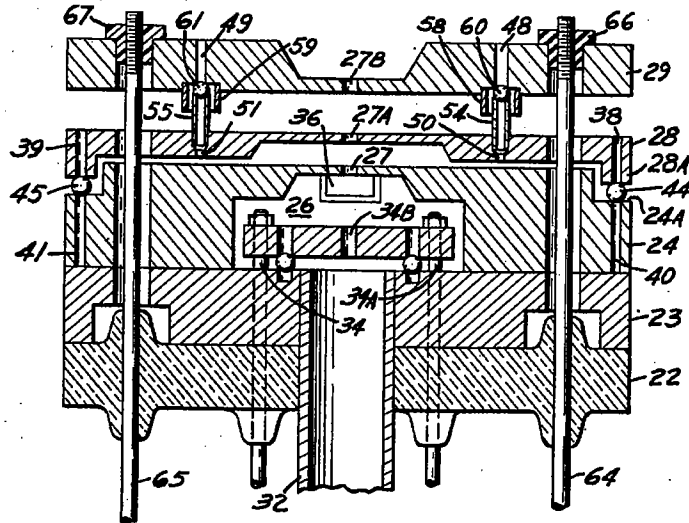
Applicants respectfully assert that independent claims 1, 8, and 19 are not anticipated by *Robinson* under 35 U.S.C. § 102(b) because *Robinson* does not describe each and every element of independent claims 1, 8, and 19. Additionally, the applicants respectfully submit that the elements in *Robinson* are not arranged or combined in the same way as in the claim, as required by law. In particular, *Robinson* does not describe a first holding piece for abutting the first element to the first distance piece, wherein the first holding piece is directly attached to the first distance piece, as recited in independent claims 1, 8, and 19.

*Robinson* discloses an arrangement for vacuum electrodes. Referring to Figure 2, shown below, the Examiner asserts that *Robinson* teaches a first holding piece 24A for abutting the first element 24 to the first distance piece 44, wherein the first holding piece 24A is attached to the first distance piece 44 to fasten the first holding piece 24A directly to the first distance piece 44. (Final Office action dated June 23, 2009, p. 3-4.) Furthermore, the Examiner asserts that groove 24A, while being a negative part of the plate, can be at least partially filled (by the glass ball) to hold and/or attach the ball to the plate, thereby abutting the glass ball to the plate. (Advisory Action dated August 31, 2009.

*Robinson* discloses an arrangement for vacuum electrodes. (*Robinson*, Title, 1:1-7.) *Robinson* shows a mounting means and accelerating electrodes 28, 29, and a plate 24 with an annular groove 24A. (*Id.*, 4:34-40, 5:12-25, Figure 2.) A plurality of tie rods 64, 65 are connected between the insulated plate 22 and the uppermost electrode 29, passing through oversized passageways in the intermediate conductive plates and electrodes 23, 24, 28, and 29. (*Id.*, 5:59-71, Figure 2.) The electrode 29 is held onto the tie rods by nuts 66, 67. (*Id.*) Glass balls 44, 45 are seated in a pair of holes 38, 39 of electrode 28 and holes 40, 41 in groove 24A of plate 24. (*Id.*, 5:12-25, Figure 2.) The electrode 29 exerts a compressive force on the intervening electrodes which hold the spacing balls. (*Id.*, 5:59-71, Figure 2.) Further, *Robinson* teaches that there is no

need of providing tie rods from the insulating plate 22 to the intermediate electrodes since they are all clamped in position by the single group of tie rods and are held in this position by the spacing balls. (*Id.*, 6:7-15, Figure 2.)

FIG. 2



Thus, *Robinson* fails to teach, show, or suggest a first holding piece for abutting the first element to the first distance piece where the first holding piece is directly attached to the first distance piece, as recited in claims 1, 8, and 19. Applicants still fail to see how a groove 24A in plate 24, in and of itself, can abut the plate 24 to the distance element 44, as suggested by the Examiner. Furthermore, Applicants fail to see how a groove 24A can attach the ball 44 to the plate 24, when the groove 24A is the part of the plate 24 on which the ball 44 rests, as suggested by the Examiner.

A groove 24A is a hole in the geometry and cannot be attached to something by itself, but can only be formed in plate 24. The groove is a negative part of the plate, but not a single part in and of itself that could be attached to the glass ball or the plate. Thus, contrary to the Examiner's assertions, the groove 24A as shown in *Robinson* fails to abut the glass balls 44, 45 to the plate 44. As *Robinson* teaches, it is the compressive force of the tie rods 64, 65 that hold the spacing balls and prevent any shift

of the electrodes with respect to each other. (*Robinson*, 5:67-71, Figure 2.) Moreover, the groove 24A is not directly attached to the glass balls 44, 45.

As *Robinson* does not describe a first holding piece for abutting the first element to the first distance piece, wherein the first holding piece is directly attached to the first distance piece, as recited in independent claim 1, Applicants assert that claim 1 is not anticipated by *Robinson* and respectfully request that the Examiner withdraw the rejection of independent claim 1 under 35 U.S.C. § 102(b).

Furthermore, as *Robinson* does not describe a first holding piece for abutting the first element to the first distance piece, wherein the first holding piece is directly attached to the first distance piece, as recited in independent claim 8, Applicants assert that claim 8 is not anticipated by *Robinson* and respectfully request that the Examiner withdraw the rejection of independent claim 8 under 35 U.S.C. § 102(b).

Additionally, as *Robinson* does not describe a first holding piece for abutting the first element to the first distance piece, wherein the first holding piece is directly attached to the first distance piece, as recited in independent claim 19, Applicants assert that claim 19 is not anticipated by *Robinson* and respectfully request that the Examiner withdraw the rejection of independent claim 19 under 35 U.S.C. § 102(b).

Applicants additionally assert that each of dependent claims 2-7, 9-12, 15, and 17 is allowable at least because each depends directly or indirectly from claims 1 and 8, which is allowable for the reasons stated above. Therefore, Applicants assert that claims 2-7, 9-12, 15, and 17 are patentable over *Robinson* and respectfully request that the Examiner withdraw the rejection of dependent claims 2-7, 9-12, 15, and 17 under 35 U.S.C. § 102(b).

### **Claim Rejections Under 35 U.S.C. § 103**

Claim 11 is rejected under 35 U.S.C. § 103(a) as being unpatentable over *Robinson*.

Claim 16 is rejected under 35 U.S.C. § 103(a) as being unpatentable over *Robinson* in view of *Benveniste* (U.S. Pub 2005/0242293, hereinafter *Benveniste*).

To establish prima facie obviousness of a claimed invention, all of the claim limitations must be taught or suggested by the prior art. (See MPEP 2143.03, *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA)).

Claims 11 and 16 depend indirectly from claim 8, and include the elements and limitations recited therein.

As previously discussed herein, the teachings of *Robinson* do not describe, teach, or suggest a first holding piece for abutting the first element to the first distance piece, wherein the first holding piece is directly attached to the first distance piece, as recited in independent claim 8.

The teachings of *Benveniste* do not satisfy the deficiencies of *Robinson*.

*Benveniste* teaches an electrode subassembly for an ion implanter. (*Benveniste*, [0001], Figure 1.) The subassembly comprises a first generally planar electrode having a first aperture; a second generally planar electrode having a second aperture aligned with the first aperture; and a pair of connecting rods connecting the first generally planar electrode to the second generally planar electrode. (*Benveniste*, [0010]-[0011], Figure 1, claim 1.) The connecting rods permit generally parallel and slidable movement of the second generally planar electrode with respect to the first generally planar electrode. (*Benveniste*, abstract, [0010]-[0011], Figure 1, claim 1.)

However, *Benveniste* fails to teach, show, or suggest, a first holding piece for abutting the first element to the first distance piece, wherein the first holding piece is directly attached to the first distance piece, as recited in claim 8.

Thus, combination of *Robinson* and *Benveniste* fails to teach, show, or suggest a first holding piece for abutting the first element to the first distance piece, wherein the first holding piece is directly attached to the first distance piece, as recited in independent claim 8.

As combination of *Robinson* and *Benveniste* fails to teach, show, or suggest each of the limitations of independent claim 8, Applicants respectfully assert that dependent claims 11 and 16 would not have been obvious to one of ordinary skill in the art at the time the invention was made, and request that the Examiner withdraw the rejection of dependent claims 11 and 16 under 35 U.S.C. § 103(a).

Furthermore, Applicants cannot see how a combination of any of the references would lead to the subject-matter of claim 16. *Benveniste* provides a slidable arrangement, whereas the present application provides a beam optical component for holding the parts of that component in a defined distance.

Therefore, Applicants respectfully assert that dependent claim 16 could not have been obvious to a person of ordinary skill in the art at the time the invention was made considering *Robinson* in view of *Benveniste*, and request that the Examiner withdraw the rejection of dependent claim 16 under 35 U.S.C. § 103(a) for this additional reason.

Claim 18 is rejected under 35 U.S.C. § 103(a) as being unpatentable over *Robinson* in view of *Tsuno* (U.S. Pat. 4,450,357, hereinafter *Tsuno*).

To establish prima facie obviousness of a claimed invention, all of the claim limitations must be taught or suggested by the prior art. (See MPEP 2143.03, *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA)).

Claim 18 depends directly from claim 1, and includes the elements and limitations recited therein.

As previously discussed herein, the teachings of *Robinson* do not describe, teach, or suggest a first holding piece for abutting the first element to the first distance piece, wherein the first holding piece is directly attached to the first distance piece, as recited in independent claim 1.

The teachings of *Tsuno* do not satisfy the deficiencies of *Robinson*.

*Tsuno* teaches an electron lens, equipped with three magnetic pole pieces, 7, 8, 9 defining two gaps, S1, S2 forming two magnetic fields of opposite polarity. (*Tsuno*, 1:18-31, Figure 1.) In the electron lens of *Tsuno*, an upper pole piece 7, a middle pole piece 8 and a lower pole piece 9 are installed with non-ferromagnetic spacers 10 and 11 therebetween. (*Id.*) The pole pieces are enveloped by a ferromagnetic yoke 4. (*Id.*)

However, *Tsuno* fails to teach, show, or suggest, a first holding piece for abutting the first element to the first distance piece, wherein the first holding piece is directly attached to the first distance piece, as recited in claim 1.

Thus, combination of *Robinson* and *Tsuno* fails to teach, show, or suggest a first holding piece for abutting the first element to the first distance piece, wherein the first holding piece is directly attached to the first distance piece, as recited in independent claim 1.

As combination of *Robinson* and *Tsuno* fails to teach, show, or suggest each of the limitations of independent claim 1, the Applicants respectfully assert that dependent claim 18 would not have been obvious to one of ordinary skill in the art at the time the invention was made, and request that the Examiner withdraw the rejection of dependent claim 18 under 35 U.S.C. § 103(a).

#### **Allowable Subject Matter**

Claims 13 and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicants wish to thank the Examiner for the allowable subject matter.

### **Conclusion**

In conclusion, the references cited by the Examiner, alone or in combination, do not teach, show, or suggest the invention as claimed.

Having addressed all issues set out in the Final Office Action, Applicant respectfully submits that the claims are in condition for allowance and respectfully request that the claims be allowed.

Respectfully submitted,

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